

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/932,291	CANTRELL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	D. L. Jones	1618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/5/05; 1/17/06; and 3/16/06.
2. ☒ The allowed claim(s) is/are 31,35,36,45-48,52,53,58-60,62,63,66,68 and 77-80.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date <u>12/5/05</u></li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date <u>3/16/06</u>.</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
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### **ACKNOWLEDGMENTS**

1. The Examiner acknowledges receipt of the amendment filed 1/17/06 wherein claims 1-30, 32-34, 37-41, 43, 44, 49, 51, 54-57 61, 64, 65, 67, and 69-76 are canceled and claims 42 and 48 are amended.

### **RESPONSE TO APPLICANT'S AMENDMENT/ARGUMENTS**

2. The Applicant's arguments/amendment filed 1/17/06 to the rejection of claims 31, 32, 35, 36, 38, 42,47-50, 52, 53, and 55-80 made by the Examiner under 35 USC 112 have been fully considered and deemed persuasive because Applicant has either amended the claims to overcome the rejection or canceled the appropriate claim. Therefore, all outstanding rejection are withdrawn.

### **EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Beverly Lyman on 3/16/06.

The application has been amended as follows.

Cancel claims 42 and 50.

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Replace claim 48 with the following.

Claim 48 (CURRENTLY AMENDED) A method of targeting an effector molecule to a target site in a patient, said method comprising:

providing to said patient an effective amount of a physiologically acceptable composition comprising an organized mobile multicomponent conjugate (OMMC) assembly comprising a lamellar structure selected from at least one of salts of docosanoic acid or salts of octacosanoic acid;

said lamellar structure defining a void and having incorporated at least two binding compounds B<sup>1</sup> and B<sup>2</sup> independently selected from at least one of amino acids, peptides (1-20 amino acids), peptidomimics, monosaccharides, oligosaccharides (1-10), glycomimics, glycopeptides, anionic compounds, C- or O- monosaccharides and glycosides, flavonoids, isoflavonones, or C- or O- glucosides;

B<sup>1</sup> bound to said structure by anchor region A<sup>1</sup> and B<sup>1</sup> and A<sup>1</sup> linked via linker L<sup>1</sup> wherein A<sup>1</sup> is a succinic acid ester of PEG[50] stearate L<sup>1</sup> and B<sup>2</sup> bound to said structure by anchor region A<sup>2</sup> and B<sup>2</sup> and A<sup>2</sup> linked via linker L<sup>2</sup> wherein A<sup>2</sup> is a fucosuccinamide ester of a PEG[50] stearate L<sup>2</sup>, and

an effector molecule selected from an echogenic agent selected from the group consisting of perfluoropropane, perfluorobutane, sulfur hexafluoride, tetrafluoromethane, hexafluoroethane, octafluoropropane, decafluorobutane, dodecafluoropentane, and perfluorohexane; a radionuclide selected from the group consisting of I-123, I-131, Tc-99m, Re-186, Re-188, Sm-152, Ho-155, Bi-202, and Lu-157; a paramagnetic agent selected from the group consisting of Gd-DTPA, Gd-DOTA, Gd-DTPA-

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bis(methoxyethyl)amide, and Mn-EDTA; a cytotoxic agent selected from the group consisting of fluorouracil, fluorouridine, sulfoxazole, N'-(w-thiazolyl)sulfanilamide, sulfmethoxazole, and sulfisomidine; and an optical agent selected from the group consisting of fluorescein and indocyanine green,

said B<sup>1</sup> and B<sup>2</sup> binding to at least first and second affinity sites in said target site, wherein a position of B<sup>1</sup> and B<sup>2</sup> relatively self-adjust to form an OMMC ensemble resulting in cooperative binding of B<sup>1</sup> and B<sup>2</sup> to said affinity sites, wherein said effector molecule is provided to the target site.

Replace claim 68 with the following.

68 (CURRENTLY AMENDED) The method of claim 48 wherein B<sup>1</sup> is selected from the group consisting of an oligosaccharide, a monosaccharide, and a disaccharide; and B<sup>2</sup> is selected from the group consisting of  $-\text{O}(\text{CH}_2)_{1 \text{ or } 2}\text{CO}_2^-$ ,  $-\text{O}(\text{CH}_2)_{1 \text{ or } 2}\text{SO}_3^-$ ,  $-\text{O}(\text{CH}_2)_{1 \text{ or } 2}\text{SO}_4^-$ , and  $-\text{O}(\text{CH}_2)_{1 \text{ or } 2}\text{PO}_4^-$ .

Replace claim 80 with the following.

80 (CURRENTLY AMENDED) The method of claim 79 wherein the carminic acid family is selected from the group consisting of carmine, 18b-glycyrrhetic acid, or a salt thereof.

#### REASONS FOR ALLOWANCE


4. Claims 31, 35, 36, 45-48, 52, 53, 58-60, 62, 63, 66, 68, and 77-80 are allowable over the prior art of record for reasons of record in the office action mailed 6/30/05.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. L. Jones whose telephone number is (571) 272-0617. The examiner can normally be reached on Mon.-Fri., 6:45 a.m. - 3:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
D.L. Jones  
Primary Examiner  
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March 16, 2006